Listing of claims:

1. (Withdrawn) An apparatus for adjusting slope compensation in a switching regulator that includes an inductor, the apparatus comprising:

a divider block that is arranged to: receive a first signal, receive a second signal, and provide a divide signal that is proportional to a division of the first signal by the second signal, wherein the first signal is associated with an output voltage (V_{OUT}) of the switching regulator, and wherein the second signal is related to a measured value associated with the inductor; and

a ramp generator block that is responsive to the divide signal such that the slope of the ramp signal dynamically adjusted in response to the output voltage of the switching regulator and the measured value associated with the inductor.

2. (Withdrawn) The apparatus of Claim 1 further comprising: a gain block that is arranged to receive the divide signal and provide a scaled signal to the ramp generator block, wherein the scaled signal is related to the divide signal according to a scaling factor (K).

3. (Withdrawn) The apparatus of Claim 1 further comprising: a gain block that is arranged to receive the first signal and provide a scaled signal to the divide block, wherein the scaled signal is related to the first signal according to a scaling factor (K_R).

4. (Withdrawn) The apparatus of Claim 1 further comprising: a gain block that is arranged to receive the second signal and provide a scaled signal to the divide block, wherein the scaled signal is related to the second signal according to a scaling factor (K_I).

5. (Withdrawn) The apparatus of Claim 1, wherein the switching regulator is a boost regulator and the first signal corresponds to a difference between the output voltage of the switching regulator (V_{OUT}) and an input voltage of the switching regulator (V_{IN}).

6. (Withdrawn) The apparatus of Claim 1, further comprising a difference circuit that is arranged to: receive a first input signal (V_{REF}) that is associated with the output voltage

(V_{OUT}), receive a second input signal (V_{IN}) that is associated with an input voltage, and provide the first signal (V_{DIFF}) as a difference between the first input signal (V_{REF}) and the second input signal (V_{IN}).

7. (Withdrawn) The apparatus of Claim 1, further comprising:

a first gain block that is arranged to: receive a first input signal (V_{REF}) that is associated with the output voltage (V_{OUT}), and provide a first scaled signal that is related to the first input signal (V_{REF}) according to a first scaling factor (K_R);

a second gain block that is arranged to: receive a second input signal (V_{IN}) that is associated with an input voltage of the switching regulator, and provide a second scaled signal that is related to the second input signal (V_{IN}) according to a second scaling factor (K_V); and

a difference circuit that is arranged to: receive the first scaled signal, receive the second scaled signal, and provides the first signal as a difference (V_{DIFF}) between the first scaled signal and the second input signal.

8. (Withdrawn) The apparatus of Claim 1, wherein the apparatus is further arranged such that the first signal is associated with a set point for the output voltage (V_{OUT}) of the switching regulator.

9. (Withdrawn) The apparatus of Claim 1, wherein the apparatus is further arranged such that the first signal is associated with the output voltage (V_{OUT}) of the switching regulator via a feedback circuit.

10. (Withdrawn) An apparatus for adjusting slope compensation in a switching regulator that includes an inductor, the apparatus comprising:

a first current source that is arranged to provide a first current that is associated with the an output voltage (V_{OUT}) of the switching regulator;

a second current source that is arranged to provide a second current that is related to a measured value (V_I) associated with the inductor; and

a capacitor circuit that is arranged to receive a charging current to provide a ramp signal, wherein the ramp signal has a slope (m_e) that is related to the first and second currents via the charging current such that the slope is dynamically adjusted in response to changes in the output voltage and the measured value associated with the inductor.

11. (Withdrawn) The apparatus of Claim 10, further comprising a current divider circuit that is: responsive to the first current, responsive to the second current, and arranged to provide a divide current that is proportional to the ratio of the first current (I_1) to the second current (I_2) such that the charging current for the capacitor circuit is responsive to the divide current.

12. (Withdrawn) The apparatus of Claim 11, wherein the divider block comprises: a first transistor that is responsive to the first current, a second transistor that is configured to cooperate with the first transistor to provide a control signal, a third transistor that is responsive to the control signal and the second current, and a fourth transistor that is arranged to cooperate with the third transistor and the second current source to provide the divide current.

13. (Withdrawn) The apparatus of Claim 10, wherein the first current source is configured such that the first current is proportional to $V_{REF} \cdot K$, wherein V_{REF} is related to the output voltage and K is a proportionality constant.

14. (Withdrawn) The apparatus of Claim 10, wherein the second current source is configured such that the second current is proportional to $V_1 \cdot K$, wherein V_1 is related to the measured value associated with the inductor and K is a proportionality constant.

15. (Withdrawn) The apparatus of Claim 10, further comprising a third current source that is arranged to provide a third current that is associated with an input voltage of the switching regulator, wherein the apparatus is arranged to subtract the third current from the first current to provide a difference signal (DIFF) such that the slope (m_e) of the ramp signal is

proportional to (DIFF · K) / (V_1 · C), where K is a proportionality constant, and C is a value associated with the capacitance circuit.

16. (Currently Amended) A method for adjusting slope compensation in a switching regulator that includes an inductor, the method comprising:

measuring a parameter associated with the inductor;

providing a measurement signal that is associated with the measured parameter;

dynamically adjusting a slope associated with a ramp signal in response to the measurement signal; and

compensating a response associated with a control loop in the switching regulator with the ramp signal such that the control loop is responsive to changes in inductor current slope.

17. (Currently Amended) The method of Claim 16 wherein dynamically adjusting the slope associated with the ramp signal comprises at least one of dynamically changing a capacitance value that is associated with a ramp generator, and dynamically changing a charging current that is associated with the ramp generator circuit, wherein the slope of the ramp signal is proportional to the ratio of the charging current to the capacitance value such that the slope of the ramp signal is responsive to the measurement signal.

18. (Original) The method of Claim 16 further comprising: monitoring a reference signal that is related to an output voltage of the switching regulator, dividing the reference signal with the measurement signal to provide a ratio, and changing the slope associated with the ramp signal in response to the ratio such that the slope of the ramp signal is responsive to the measurement signal and the output voltage.

19. (Currently Amended) An apparatus for adjusting slope compensation in a switching regulator that includes an inductor, the apparatus comprising:

a means for measuring a parameter that is associated with the inductor;

a means for providing a measurement signal that is associated with the measured parameter;

a means for dynamically adjusting a slope that is associated with a ramp signal in response to the measurement signal; and

a means for compensating a response that is associated with a control loop in the switching regulator with the ramp signal such that the control loop is responsive to changes in inductor current slope via the measurement signal.

20. (Original) The apparatus of claim 19, further comprising: a means for monitoring a reference signal that is related to an output voltage of the switching regulator, a means for dividing the reference signal with the measurement signal to provide a ratio, and a means for changing the slope that is associated with the ramp signal in response to the ratio such that the slope of the ramp signal is responsive to the measurement signal and the output voltage.

21. (Previously presented) The method of Claim 16, wherein measuring the parameter associated with the inductor comprises: measuring a current slope associated with current flowing in the inductor, and wherein the parameter corresponds to the current slope.

22. (Currently Amended) The method of claim 21, wherein dynamically adjusting the slope associated with the ramp signal corresponds to dynamically adjusting the slope associated with the ramp signal in response to the measured current slope according to at least one of: a matched slope, a fraction of a downward slope associated with the inductor current, and a multiple of the downward slope associated with the inductor current.

23. (Previously presented) The method of Claim 16, further comprising: monitoring an output voltage associated with the switching regulator, and dynamically adjusting the slope that is associated with the ramp signal in response to the monitored output voltage.

24. (Previously presented) The method of Claim 16, further comprising: monitoring an output voltage associated with the switching regulator, and dynamically adjusting the slope that is associated with the ramp signal in response to the monitored output voltage, wherein measuring the parameter associated with the inductor comprises measuring a current slope associated with current flowing in the inductor such that the parameter corresponds to the current slope.

25. (Previously presented) The method of Claim 16, further comprising: monitoring an output voltage associated with the switching regulator to provide a first current signal, generating a second current signal as the measurement signal, summing the first current signal and the second current signal, and adjusting the slope associated with the ramp signal in response to the sum of the first current signal and the second current signal.

26. (Currently Amended) The method of Claim 25, wherein dynamically adjusting the slope associated with the ramp signal corresponds to an integration of the sum of the first current signal and the second current signal with a capacitor circuit.

27. (Previously presented) The apparatus of Claim 19, wherein the parameter associated with the inductor comprises a current slope associated with current flowing in the inductor.

28. (Currently Amended) The apparatus of claim 20, wherein the means for dynamically adjusting the slope associated with the ramp signal is arranged to adjust the slope associated with the ramp signal in response to the measured current slope according to at least one of: a matched slope, a fraction of a downward slope associated with the inductor current, and a multiple of the downward slope associated with the inductor current.

29. (Previously presented) The apparatus of Claim 19, further comprising: a means for monitoring an output voltage associated with the switching regulator, and a means for

dynamically adjusting the slope that is associated with the ramp signal in response to the monitored output voltage.

30. (Previously presented) The apparatus of Claim 19, further comprising: a means for monitoring an output voltage associated with the switching regulator, and a means for dynamically adjusting the slope that is associated with the ramp signal in response to the monitored output voltage, wherein the parameter associated with the inductor comprises a current slope associated with current flowing in the inductor.

31. (Previously presented) The apparatus of Claim 19, further comprising: a means for monitoring an output voltage associated with the switching regulator to provide a first current signal, a means for generating a second current signal as the measurement signal, a means for summing the first current signal and the second current signal, and a means for adjusting the slope associated with the ramp signal in response to the sum of the first current signal and the second current signal.

32. (Previously presented) The apparatus of Claim 31, wherein the means for adjusting the slope associated with the ramp signal is arranged to integrate the sum of the first current signal and the second current signal with a capacitor circuit.